

Certified Products

- Product

Display Unit: multiple products

- Certificate Holder

LENOVO (BEIJING) LIMITED

- Test Mark Number

0217010261



The test includes:

1. Eye Comfort

TÜV Rheinland has tested this product to determine whether it is eye-friendly, i.e. that eyes tire less than with comparable products. TÜV Rheinland has defined a catalogue of tests, which establishes minimum standards for eye comfort according to the product and its intended use. The test catalogue is based on internationally applicable standards and common standards within the industry and exceeds these requirements. The manufacturer's specifications are also checked. Among others, the requirements of ISO 9241 307 must be met: flicker-free, low blue light proportion, no disturbing reflections, low reduction of image quality when viewing the display from different positions and helpful instructions on correct installation and use. The product has been tested in the laboratory according to these criteria. The keyword "Eye Comfort" confirms that the product meets TÜV Rheinland's test criteria.



Certification

The products named in the certificates have been tested by TÜV Rheinland Shenzhen Ltd. and fulfill the defined requirements.

Consumer Information

Remark1: The model is tested without ambient light sensor based on customer's claim that the product is only used for fixed indoor lighting condition.

Remark2: The model is tested with only sRGB color space.

Information

- Description

What is TÜV Rheinland's Star Rating?

TÜV Rheinland has developed a scoring system to award test marks with a star rating.

The maximum number is five stars. Every star has to be earned.

TÜV Rheinland has put in place a systematic scoring system for proving the claim shown in the test mark:

First, we defined the qualities needed to fulfill the claim.

Then we developed test items that can prove each quality.

Following, we defined thresholds for each star rating.

After testing and evaluating every quality, the star rating reflects the degree of fulfillment.

For details, see the table below.

- TÜV Rheinland Eye Comfort Standard V.3.0

TÜV Rheinland has introduced the new Eye Comfort 3.0 certification program with a star rating scheme to the display industry in October 2023. Compared to existing Eye Comfort programs, the 5-star-rating program adds some new requirements like the refresh rate and intelligent ambient light sensor performance. It lays out requirement metrics and rates the product performance on five levels.

The eye wellness factors being considered remain constant, however, the standards for the various star ratings are different. The higher the star rating, the more stringent the standards.

The table below lists the major eye comfort requirements which apply in addition to the basic eye comfort requirements (such as pixel density, uniformity of luminance and color, and freedom of movement).

This table shows the main requirements for eye comfort of monitors.

Quality	Details	1 star ★	2 stars ★★	3 stars ★★★	4 stars ★★★★	5 stars ★★★★★
Eye care	Low blue light	Software solution only ¹	Software solution only ¹	Below 50%. Hardware solution only	Below 35%. Hardware solution only	Below 35%. Hardware solution only
	Flicker	Flicker reduced	Flicker reduced	Flicker reduced	Flicker reduced	Flicker free
Ambient light management		-	-	-	-	Sensor controlled (correlated color temperature, luminance)
Image quality	Refresh rate	Fair 60Hz	Fair 60Hz	Fair 60Hz	Good ≥75Hz	Very good ≥120Hz
	Color accuracy ²	Basic $\Delta E_{2000} \leq 5$	Standard $\Delta E_{2000} \leq 4$	Fair $\Delta E_{2000} \leq 3$	Good $\Delta E_{2000} \leq 2$	Very good $\Delta E_{2000} \leq 1.5$
	Wide color gamut ³	Basic NTSC ⁴ Min.45% (CIE 1931)	Standard NTSC ⁴ Min.72% (CIE 1931)	Fair NTSC ⁴ Min.72% (CIE 1931) or sRGB ⁵ Min 95% (CIE 1931)	Good sRGB ⁴ Min.95% (CIE 1931)	Very good DCI-P3 ⁵ Min. 95% (CIE 1976) & sRGB ⁶ Min.95% (CIE 1931) or Adobe RGB ⁷ Min.95% (CIE 1931) & sRGB ⁵ Min.95% (CIE 1931)
		¹ Software controls the blue light emission by reducing excessive blue light, resulting in a more yellow tone. ² The methodology Delta E 2000 was developed by the CIE (International Commission on Illumination) in the year 2000. The value shows the difference between the standard's defined color to the color that is actually visible on the display. The smaller the value, the more accurate the color display. ³ Color gamut describes the availability of colors in the display. Various standards were developed for specific purposes. 100% corresponds to the full color space as defined in the standard.				

		<p>⁴ NTSC stands for National Television Standards Committee, which developed a color space for the television system that is used in the United States.</p> <p>⁵ sRGB is a standard red, green, and blue color space that is in use on monitors, printers, and the World Wide Web.</p> <p>⁶ DCI-P3, short for Digital Cinema Initiatives - Protocol 3, is a color space used in digital cinema that encompasses a wider range of colors than the standard RGB color space.</p> <p>⁷ Adobe RGB is a color space created by Adobe Systems that encompasses a broader range of colors than the standard RGB color model, particularly in the cyans and greens.</p>
--	--	--

Certificate for these Products

- [Certificate Qualitäts-Prüfung Q \(50644950\) "P27*-* , D25270***"](#)
- [Certificate Qualitäts-Prüfung Q \(50655210\) "C25238FT*"](#)
- [Certificate Qualitäts-Prüfung Q \(50656131\) "A25238***"](#)
- [Certificate Qualitäts-Prüfung Q \(50661425\) "T27*-* , D25270***"](#)
- [Certificate Qualitäts-Prüfung Q \(50661443\) "T27*-* , D25270***"](#)
- [Certificate Qualitäts-Prüfung Q \(50666682\) "A253403***"](#)
- [Certificate Qualitäts-Prüfung Q \(50667884\) "C25270QP*"](#)
- [Certificate Qualitäts-Prüfung Q \(50667925\) "C25270QT*"](#)
- [Certificate Qualitäts-Prüfung Q \(50669159\) "A253403***"](#)
- [Certificate Qualitäts-Prüfung Q \(50669254\) "A25238***"](#)
- [Certificate Qualitäts-Prüfung Q \(50675899\) "C25315UP*"](#)
- [Certificate Qualitäts-Prüfung Q \(50680222\) "A253975***"](#)

Further information by the certificate holder about the certified product

Contact to the certificate holder

LENOVO (BEIJING) LIMITED

201-H2-6, Floor 2, Building 2,
No.6 Shangdi West Road,
Haidian District,

100085 Beijing
China (Mainland)

Acceptance Details About Cookies

This website uses cookies for statistical analysis

Technically necessary cookies must be set in order to ensure the proper functioning of our website.

Additional cookies - both our own and third-party cookies, as well as other similar technologies - are only used with your consent.

Analytical or statistical cookies help us understand how visitors interact with our website.

For more information, please read our [cookie policy](#). You can manage your cookie preferences now by clicking "Accept," "Reject," or "Change cookie settings".

Reject Customize > Accept

Analytics 4

☐

Statistics cookies help website owners understand how visitors interact with websites by collecting and reporting information anonymously.

Unclassified 0

Reject Confirm Selection Accept

Cookies are small text files used by websites to make the user experience more efficient.

By law, we may store cookies on your device if they are strictly necessary for the operation of this site.

All other types of cookies require your permission.

This site uses different types of cookies. Some cookies are placed by third parties that appear on our pages.

You can change or withdraw your consent at any time from the [cookie declaration](#) on our website.

For more information about who we are, how you can contact us, and how we process personal data, please see our [Privacy Policy](#).

Reject Customize > Accept